

Remarks

Applicants would like to thank the Examiner for the review of the present application.

In the Claims

Claims 1-4, 6-10, and 14-23 are currently pending in the application. Claim 24 has been cancelled (claim 24 had previously been withdrawn). No new matter has been added.

Rejections under 35 USC §103

The Office action rejects claims 1-4, 6-10 and 14-23 under 35 USC §103(a) as being unpatentable over U.S. Patent No. 5,973,481 issued to Thompson et al. ("Thompson") in view of U.S. PG Pub. 2003/0220717 issued to Underwood et al. ("Underwood"). Applicants respectfully disagree.

The Office states that Underwood teaches that it is well known to monitor the output (flow) of the water purification device using a flowmeter. See Advisory Action, dated April 6, 2009, page 2, citing Underwood, Fig. 2 element 220, paragraph 0024. The Office further states that Underwood teaches the measurement of the output flowmeter of the treated water can be sent to the control sub-system for processing. See Advisory Action, dated April 6, 2009, page 2, citing Underwood, abstract, figure 3, elements 334, 344, 310.

However, Underwood, in paragraph 0024, does not disclose nor discuss a flowmeter. Rather, Underwood disclose the use of an influent valve 202 for controlling the flow of water from WATER SOURCE to the filter bed 206, see Underwood, paragraph 0024, lines 3-5 and 11-13. Underwood additionally discloses that if the FILTERED water from the filter bed 206 is determined to be acceptable...a DRAIN valve 214, a FILTER TO WASTE valve 216 and a BACKWASH valve 210, a AIRWASH valve 212, are all closed to allow the FILTERED water to exit the system via an opened EFFLUENT valve 208. See Underwood, paragraph 0025. Further, Underwood discloses that a turbidimeter 218 is used to determine the turbidity of the FILTERED WATER, as turbidity is one parameter used to determine the quality of water. See Underwood, paragraph 0026. In addition, Underwood discloses that a HEAD LOSS device 222 may provide some indication on whether the filter bed 206 needs to undergo a backwash process.

Underwood states that whether the filtered water is acceptable or not is typically ascertained by the turbidity of the FILTERED water and head loss. See Underwood, paragraph 0026, lines 5-10.

Underwood additionally discloses that a control panel 200 can provide the appropriate signal to change the state (open or close) of a valve via the discrete control lines. The control panel 200 can monitor the turbidity of the FILTERED water or pressure differential from the HEAD LOSS device 222 and can initiate a backwash process should the turbidity or pressure differential of the FILTERED water reach an unacceptable level. See Underwood, paragraph 0030. It is well known in the art that a pressure differential may be calculated using flow rate. The disclosure and teaching in Underwood is that of using flowmeters 220 and 224 in the calculation of pressure differential indicated on the head loss device and subsequently controlling the initiation of a back-wash process and the closing of the EFFLUENT valve. See Underwood, paragraphs 0026-0030.

Thus, nowhere does Underwood disclose, teach or suggest an output sensor for measuring consumption of purified water output from the water purification device. In fact, Underwood only discloses the use of flowmeters 220 and 224 with respect to HEAD LOSS and controlling the state of a valve and initiation of a backwash process. Further, the use of the flowmeters in this way teaches away from measuring consumption of purified water, i.e., in Underwood, the flowmeters are used in the process to close the EFFLUENT valve, i.e., inhibit the output of filtered water; and initiate a backwash process, i.e., prevent the flow of filtered water in the direction of the exit.

Underwood does not disclose the use of an output flow rate sensor, nor does Underwood suggest or teach the use of an output flow rate sensor. In fact, Underwood does not teach measuring the consumption of purified water output. Rather, Underwood teaches using the pressure differential indicated on the head loss device, which may be determined using flowmeters, for controlling the state of a valve and initiation of a back-wash process. Thus, combining the flowmeters 220 and 224 of Underwood with the Thompson, the resulting system and method would not include an output flow rate sensor for measuring consumption of purified water output from the water purification device, as claimed in claims 1, 21 and 23.

Therefore, for at least the reasons discussed above, Applicants have shown that Thompson in view of Underwood fail to disclose all of the elements claimed in claims 1, 21 and

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23 and therefore respectfully request the Examiner withdraw the rejection of claims 1, 21 and 23 under 35 U.S.C. 102(a) over Thompson in view of Underwood. Applicants additionally request the withdrawal of the rejection of claims 2-4, 6-10, 14-20 and 22 as these claims depend from a base claim which has been shown to be allowable.

Conclusion

For the foregoing reasons all of the claims of the present invention are patentable over the art of record. It is believed that all of the claim rejections have been addressed and that the application is now in condition for allowance. Reconsideration of the claims and issuance of a notice of allowance are respectfully requested. If any matter arises which may expedite issuance of a notice of allowance, the Examiner is requested to call the undersigned, at the telephone number given below.

Applicants request that \$810.00 be charged to Deposit Account No. 50-4383 to cover the fee for the Request for Continued Examination.

Applicant believes that a three month extension of time is required and requests that the associated extension fee be charged to Deposit Account No. 50-4383. If any other fee is required, Applicant requests that the associated fee also be charged to Deposit Account No. 50-4383.

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Respectfully submitted,

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